

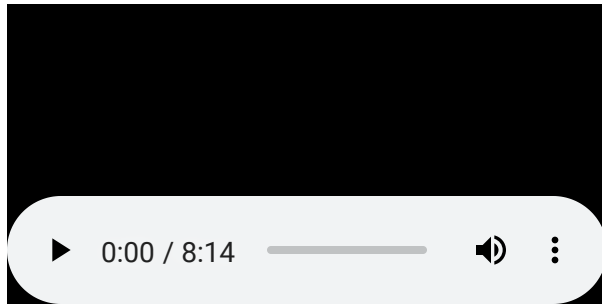
What We Know About ADHD and Food

 childmind.org/article/what-we-know-about-adhd-and-food

Does your child's diet play a role in their symptoms?

Writer: [Shelley Flannery](#)

Clinical Expert: [Stephanie Ruggiero, PsyD](#)



Listen to this article

8 min



Parents of children with *attention-deficit hyperactivity disorder*

(ADHD) often hear that certain foods can reduce or exacerbate *ADHD* symptoms, namely hyperactivity and inattention. But what does the research actually tell us?

“There has definitely been research that’s shown eating nutritious meals helps our brains function and when we don’t eat, we struggle to think clearly,” says Stephanie Ruggiero, PsyD, a psychologist in the ADHD and Behavior Disorders Center at the Child Mind Institute.

Without nutrients, our brains have difficulty creating certain neurotransmitters, the “chemical messengers” that carry nerve signals to different parts of the body. However, Dr. Ruggiero says, research has yet to prove one way or the other if any particular food, supplement, or diet can affect ADHD symptoms specifically.

“I wish we could give parents a definitive answer, but the research to date has produced mixed results,” Dr. Ruggiero says. Here’s what we know.

ADHD is linked to the Western diet

A 14-year-long study [published back in 2010](#) concluded that the Western diet — which tends to be high in fat, calories, and sugar — is associated with higher rates of ADHD in kids. But the research was only able to establish a correlation; it did not say ADHD is *caused* by the Western diet. In fact, the study authors stated it’s possible the link could be that having ADHD may cause kids to crave fat-laden foods for comfort. They also posited that family distress, another lifestyle factor that’s linked to ADHD, tends to influence dietary habits as well.

Of course, that’s not to say there isn’t room for improvement in kids’ diets, especially considering that U.S. children get [most of their calories](#) from ultra-processed foods, according to research published in *JAMA*.

For a variety of reasons, including reducing rates of obesity, diabetes, and heart disease as well as improving brain health, experts recommend following a more Mediterranean-style diet, consisting mainly of fruits and vegetables, lean proteins, healthy fats, and complex carbohydrates.

“Staying away from simple carbs and sugary foods and eating what I would call a more well-rounded diet is what we would want people to generally adhere to for overall good health,” Dr. Ruggiero says.

Sugar doesn’t cause ADHD

Research on sugar and symptoms of hyperactivity remain mixed. [Some studies](#) have reported a modest increase in hyperactivity after eating sugar while [others have not found](#) any change in symptoms.

But one thing we do know: “There is definitive research that sugar does not *cause* ADHD,” Dr. Ruggiero says. “It may cause overactivity symptoms to intensify in someone who already has ADHD, because it gives them more energy — the same goes for caffeine — but it does not cause ADHD in someone who doesn’t have it.”

Limiting sugary foods and eliminating soda and other sugary drinks is good for a variety of health-related reasons, including better weight management, reduced diabetes risk, and improved sleep. If it also helps your child’s ADHD symptoms, then all the better.

Much of the research around food additives is flawed

Plenty of ADHD blogs and social media groups would have you believe that eliminating preservatives, artificial coloring, MSG, nitrates, sugar and other food additives is the key to reducing your child’s ADHD symptoms. And, in fact, [several studies](#) have found that avoiding certain ingredients does lead to a reduction in symptoms, but the sample sizes of these studies, even when aggregated, are small, and the improvements in symptoms have been modest. Also, many of the studies are based on flawed methods, having relied on parent reporting to collect their data rather than objective means.

“It’s hard for parents to be objective in these types of studies, because they’re the ones changing what they serve their child and they’re also the reporter,” Dr. Ruggiero says. “So if you’re going through all that trouble to make the change to their diet, it might impact your perceived outcome on the results because you want it to work. I’m not saying always, but certainly it happens sometimes.”

If you’re considering starting your child on an elimination diet — an eating plan in which you remove several ingredients from their diet and then add them back one by one in an effort to identify which ingredients, if any, are linked to increased symptoms — be sure to talk to their pediatrician first.

“I always recommend consulting with a pediatrician to make sure you’re not eliminating anything from your child’s diet they need to have,” Dr. Ruggiero says. “You don’t want to end up causing more harm than good.”

Supplements could help kids who are deficient in certain vitamins and minerals

Another area of research into ADHD and food that’s produced mixed results is the use of supplements. Some studies have suggested that giving a child zinc, iron, magnesium, or vitamin B and omega-3 supplements might reduce symptom severity. And that appears to be the case for children who are deficient

in these vitamins and minerals. But there has not been any evidence that giving supplements to [children who are not deficient](#) is helpful. It could actually be harmful, Dr. Ruggiero says.

“High doses of anything can be potentially toxic, particularly for children,” she says. “If you do feel like your child needs additional vitamins and minerals, it’s best they get them from the foods they eat. Zinc, iron, and magnesium in particular can be found in meat, poultry, seafood, nuts, and soy.”

Vitamin B is abundant in leafy greens, broccoli, and chickpeas, while omega-3 fatty acids are found in salmon, walnuts, and edamame.

If getting these nutrients from food is not possible, talk to your child’s pediatrician about supplements and make sure that you are administering the correct dose.

Having ADHD can make it more difficult to eat healthfully

While there’s been little research done specifically in this area, experts say having ADHD can make it more difficult to eat a healthy diet. For starters, [ADHD medication can act as an appetite suppressant](#), and kids will commonly say they’re not hungry while they’re on it. Then, when the medication wears off, usually around the time they get home from school, they may become ravenous. That can make it difficult to wait for a healthy meal to be prepared.

“This is when you’re going to see them eating a whole box of fruit snacks and whatever else they can find, because that’s when they feel hungriest,” Dr. Ruggiero says. “I talk to parents a lot about planning meals and trying to get a meal, and particularly some protein, into their kiddo before they take their meds in the morning to start them off on the day.”

Then, it’s helpful to have healthy snacks on hand — think apple slices with nut butter, precut vegetables and hummus, low-fat yogurt and berries — to satisfy after-school hunger and tide them over until dinner.

No food or diet can replace recommended ADHD treatment

Whether or not you find a particular diet or supplement to be effective at reducing your child’s ADHD symptoms, there’s one thing to remember: Dietary changes should not take the place of prescribed medical treatment.

“While the research focusing on diet and ADHD is still questionable, we do have very good research on treating ADHD with a combination of [medication](#) and [behavior therapy](#),” Dr. Ruggiero says. “That is why it’s the most recommended form of treatment in kids as young as 6.”

There are several [ADHD medications](#) on the market today and each can affect people differently. If the medication your child has been prescribed doesn’t seem to be working or has problematic side effects, talk to your doctor about [changing the dose](#) or medication until you find one that works.

Frequently Asked Questions

Is there research linking certain foods to ADHD?

Research shows that eating nutritious meals helps our brains function, but there is no solid evidence showing that sugar or other food items affect ADHD symptoms.

Does cutting out sugar reduce ADHD symptoms?

No, cutting out sugar does not reduce ADHD symptoms. Sugar may appear to make kids more hyperactive because it can give them more energy, but sugar doesn't cause hyperactivity, a symptom of ADHD.

Do supplements help with ADHD symptoms?

Supplements are not proven to help with ADHD symptoms. Supplements can help kids who are deficient in minerals and vitamins, but they can harm kids who are already getting enough in their diets.

This article was last reviewed or updated on March 8, 2024.